

REMARKS

In the Office Action, dated October 9, 2003, the Examiner states that Claims 1 and 3-17 are pending, Claims 1, 5, 7, 12 and 13 are rejected, Claims 6, 8-11, 14 and 15 objected to, and Claims 16 and 17 are allowed. By the present Amendment, Applicant amends the claims.

In the Office Action, Claim 7 is rejected under 35 U.S.C. § 112 second paragraph, for being dependent on cancelled Claim 2. The Applicant has amended Claim 7 to depend from Claim 1 to overcome this rejection.

In the Office Action, Claims 1-5 are rejected under 35 U.S.C. § 102(b) as anticipated by either Fleury (U.S. 3,656,299) or Horton et al. (U.S. 5,546,752). The Applicant respectfully disagrees with these rejections.

Claim 1 of the present invention includes the features of:

"the hydraulic circuit further comprising a tapping circuit including means for tapping fluid from the main fluid circuit and means for removing the tapped fluid to a reservoir under atmospheric pressure via a removal pipe;

said tapping circuit further comprising a single tapping and removal valve connected continuously via a tapping pipe to a single one of said main pipes, the valve also being connected to the removal pipe, the tapping and removal valve being connected to the discharge main pipe the preferred operating direction of the motor."

Neither Fleury nor Horton disclose the above-claimed feature of a tapping and removal valve connecting a main duct to the reservoir.

Fleury U.S. 3,656,299 discloses a hydrostatic transmission having, on the one hand, valves 43 and 47 for avoiding cavitation in the cylinders (of the motor of the pump) and, on the other hand, a pressure-stabilising valve 52 that diverts fluid from the high pressure duct 31 towards an accumulator 50 (column 3, lines 29 to 50). Valves 43 and 47 cannot be compared to the tapping and removal valve of the present invention. As far as valve 52 is concerned, this valve either

connects accumulator 50 to the reservoir 41 or connects the high-pressure main duct to said accumulator when pressure in the latter is not high enough (column 3, lines 44 to 60). This valve does not connect a main duct of the circuit to the reservoir.

Horton U.S. 5,546,752 discloses the provision of a check-valve and of a neutral valve, which can be combined or not in the same valve body (Figs. 1 to 9/Figs. 10 & 11). The neutral valve diverts fluid from a pressure duct towards the reservoir (column 1, lines 50 to 60: "pressure side"). This is done at a substantially constant rate, when the pressure is between a threshold pressure ("first pressure") and a limit pressure ("third pressure"). This neutral valve is located on a line of pressure (high pressure) since it serves to limit the pressure on this line when the transmission is near to the neutral position (e.g., column 4, lines 34 to 48). If the transmission (the vehicle) has a forward and a reverse operating direction, two such neutral valves are necessary for limiting pressure in the ducts that respectively constitute the high-pressure duct in each of said directions. This is necessary, because this neutral valve diverts fluid from the high-pressure duct.

Horton refers to a single valve (column 5, lines 56 to 57 and column 6, lines 48 to 53) in the meaning that a single valve performs the functions of a check-valve and of a neutral valve, which functions are normally fulfilled by two different valves. This has no reaction with the single tapping and removal valve claimed in the present application which, by the way, is connected to the low-pressure duct (discharge main pipe).

In the Office Action, Claims 1-5, 12 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Trabbic (U.S. 3,704,588) in view of Meier (U.S. 6,430,923). The Applicant respectfully disagrees with these rejections.

Trabbic discloses a hydrostatic transmission having an acceleration control valve for providing smooth acceleration and deceleration of the motor (column 1, lines 4 to 11). This control valve contains the flow rate of fluid permitted to by-pass the motor when the transmission is shifted to and from its

neutral condition (that is when the transmission is near to the neutral position) (column 1, lines 46 to 50).

Fig. 6 of Trabbic illustrates an embodiment using a control valve 328 which is connected to the high-pressure conduit 20, and not to the discharge main pipe (column 4, lines 45 to 50 and column 2, lines 56 to 61). This is shown in Fig. 6 and is necessary to enable the control valve to perform its function of controlling the flow rate to by-pass the motor.

Therefore, Trabbic does not disclose a single tapping and removal valve connected to the discharge main pipe, as claimed in the Claim 1 of the present application.

With regard to Meier, this reference was previously discussed in Applicant's amendment dated July 18, 2003, and does not disclose the claimed feature of a tapping and removal valve.

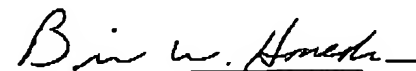
Furthermore, contrary to the assertion made by the rejection, the valves 328 of Trabbic and 42 of Meier are not functionally equivalent, the valve of Trabbic having the controlling function discussed above.

In light of the foregoing response, all the outstanding objections and rejections have been overcome. Applicant respectfully submits that this application should now be in better condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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Date


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